

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-IV(NEW) – EXAMINATION – SUMMER 2019
Subject Code:2142206
Date:25/05/2019
Subject Name: Surface Mine Production
Time:02:30 PM TO 05:00 PM
Total Marks: 70
Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Define the following term: Bench Height, Bench Width and Slope Angle.	03
	(b) Differentiate between the overall pit slope angle and ultimate pit slope angle.	04
	(c) Write the advantages and disadvantages of surface mining.	07
Q.2	(a) Enlist the different types of shovel. Explain any one.	03
	(b) Explain the overcasting by dragline.	04
	(c) Discuss factors influencing selection and characteristics of surface mining methods.	07
	OR	
	(c) Describe the stages of life of surface mine.	07
Q.3	(a) Write the application of pipe line transportation.	03
	(b) Write a short note on the Ripper.	04
	(c) Explain plaster shooting and pop shooting.	07
	OR	
Q.3	(a) Draw a table which describes the different shovel-dumper combinations with respect to minimum production/day.	03
	(b) Write a short note on the Grader.	04
	(c) What is blasting? Explain secondary blasting in brief.	07
Q.4	(a) Write short note on different drainage patterns.	03
	(b) Write a short note on the Bull dozer.	04
	(c) What do you mean by overcasting? Explain the overcasting by blasting with neat sketch.	07
	OR	
Q.4	(a) List the different types of slope failures. Explain any one.	03
	(b) Write a short note on the Scraper.	04
	(c) Explain different types of drilling patterns used in surface mining.	07
Q.5	(a) Write a short note on Power shovel.	03
	(b) Draw a flow chart of different operations of open cast mining.	04
	(c) Describe the criteria for selection and performance of different types of drilling equipments.	07
	OR	
Q.5	(a) Write a short note on Front end loaders.	03
	(b) Explain the multi row blasting with neat sketch.	04
	(c) Explain the major operations that take place in surface mining.	07
